IN THE CLAIMS

Please amend the following claims which are pending in the present application:

1 – 3. (Canceled)

4. (Previously presented) The computer system of claim 21 further comprising:

a hot plate thermally coupled to the thermoelectric module, with the thermoelectric module between the microelectronic die and the hot plate; and

a hot-side temperature sensor on a side of the thermoelectric module of the hot plate and opposing the microelectronic chip, the controller being connected to the hot-side temperature sensor to receive an indication of temperature at the hot-side temperature sensor, the controller controlling current provided to the thermoelectric module based on an input from the hot-side temperature sensor.

5. (Previously presented) The computer system of claim 21, further comprising:

a junction temperature sensor within the microelectronic die, the controller being connected to the junction temperature sensor to receive an indication of temperature at the junction temperature sensor, the controller controlling current provided to the thermoelectric module based on an input from the junction temperature sensor.

6. (Original) The computer system of claim 5, further comprising:

an ambient temperature sensor detecting ambient temperature of air distant from the microelectronic die and the thermoelectric module, the controller being connected to the ambient temperature sensor to receive an indication of temperature at the ambient temperature sensor, the controller controlling current provided to the thermoelectric module based on an input from the ambient temperature sensor.

7. (Original) The computer system of claim 6, further comprising:

an ambient moisture sensor detecting ambient moisture of air distant from the microelectronic die and the thermoelectric module, the controller being connected to the ambient moisture sensor to receive an indication of moisture at the ambient moisture sensor, the controller controlling current provided to the thermoelectric module based on an input from the ambient moisture sensor.

8. (Previously presented) The computer system of claim 21, further

comprising:

an ambient temperature sensor detecting ambient temperature of air distant from the microelectronic die and the thermoelectric module, the controller being connected to the ambient temperature sensor to receive an indication of temperature at the ambient temperature sensor, the controller controlling current provided to the thermoelectric module based on an input from the ambient temperature sensor.

9 - 20. (Canceled)

21. (Currently Amended) A computer system, comprising:

a microelectronic die having an integrated circuit formed therein;

a thermoelectric module thermally coupled to the microelectronic die so as to pump heat from the microelectronic die when power is provided to the thermoelectric module;

a fan;

a motor coupled to the fan to rotate the fan, so that the fan cools the microelectronic die;

an input device; and

a controller connected to the input device to receive a variable from the detector as an input into the controller, the controller controlling the power provided to the thermoelectric module and to the motor based on the input, ~~such that~~ wherein power to the thermoelectric module and motor [[is]] increases/decreases with an increase/decrease, respectively, in cooling requirements of the microelectronic die up to a predetermined value for the thermoelectric module, and wherein above the predetermined value, the power to the thermoelectronic module is limited while the power to the motor continues to increase/decrease with an increase/decrease, respectively, in cooling requirements of the microelectronic die ~~limited and fan speed is accelerated when power to the thermoelectric module reaches a predetermined maximum value~~.

22. (Original) The computer system of claim 21, further comprising:

a vapor chamber between the microelectronic die and the thermoelectric module; and

a fluid in the vapor chamber, the fluid being evaporated when heat transfers thereto from the microelectronic die and condensing when heat transfers therefrom to the thermoelectric module.

23. (Original) The computer system of claim 22, further comprising:

a cold-side temperature sensor between the vapor chamber and the thermoelectric module, the controller being connected to the cold-side temperature sensor and controlling current provided to the thermoelectric module based on an input from the cold-side temperature sensor.

24 – 30. (Canceled)